

Tuxson

Howland

Memoranda

NOV

Howland Is.

18-20 November 1966

Bob. Tuxson

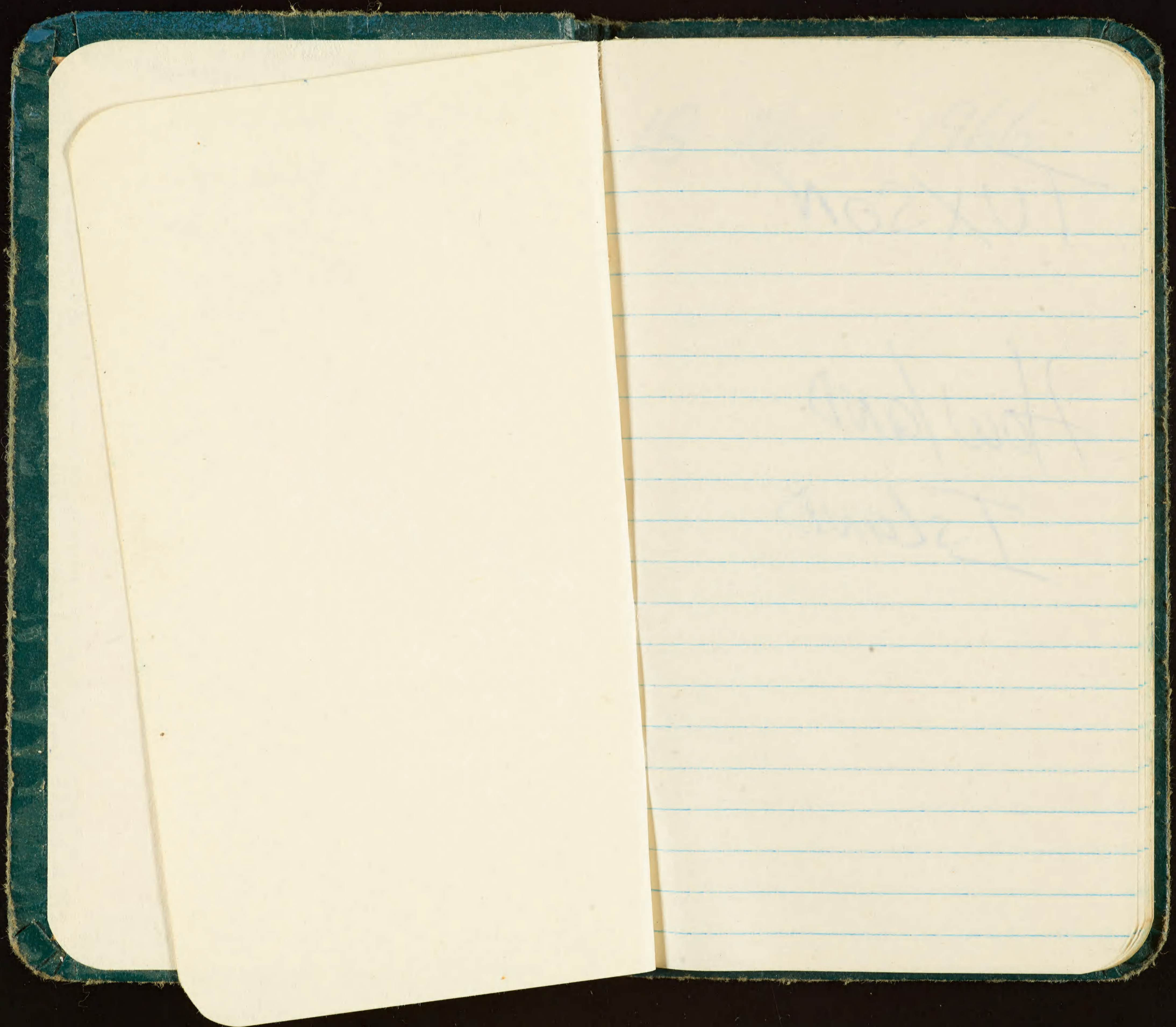
HOWLAND ISLAND

18 NOV, 1966

TUXSON



✓ AD
CP
Done 8/26/68



TUXSON

Howland
Island

18 Nov. 1966

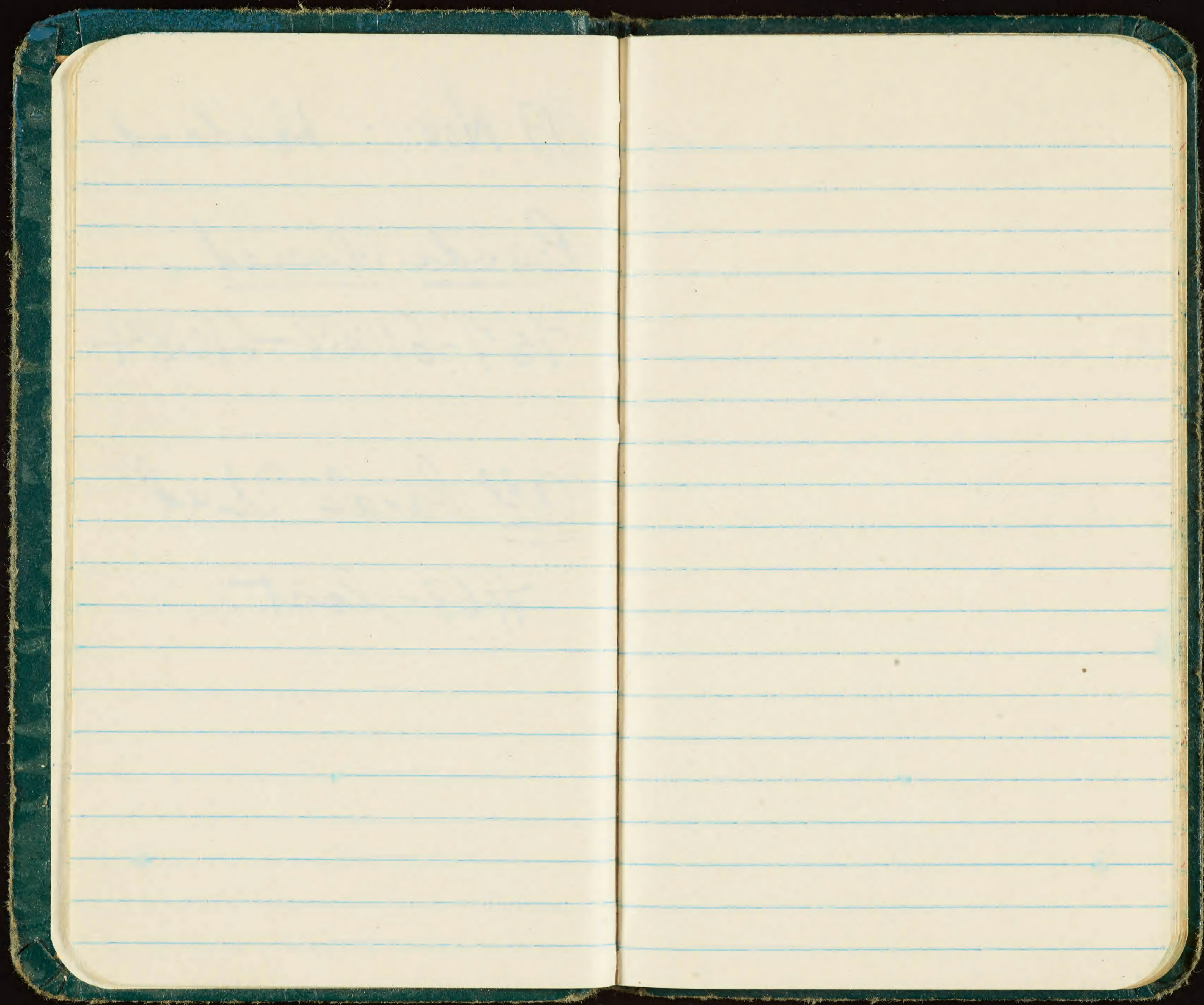
19 Nov. - Howland

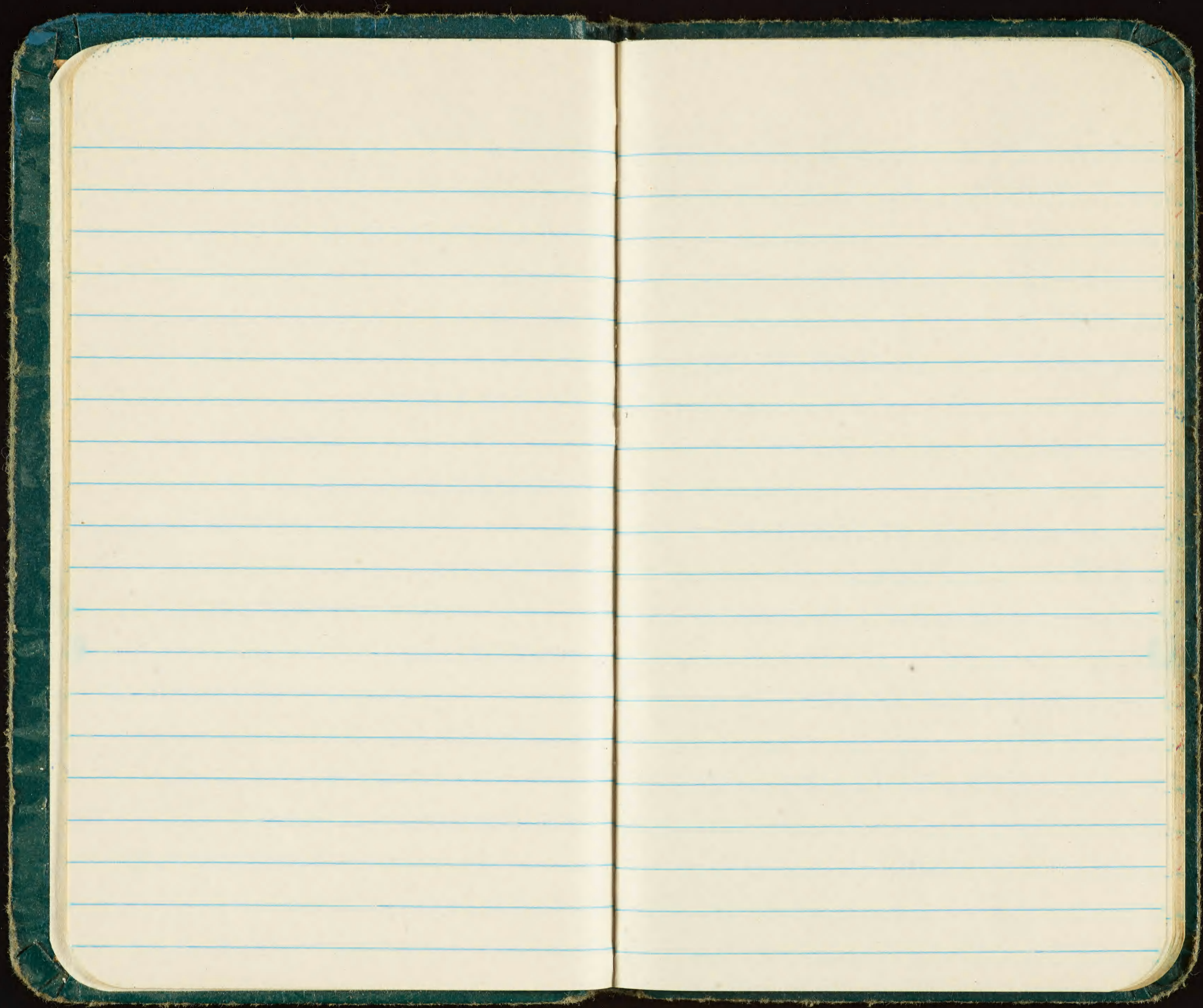
Bands closed

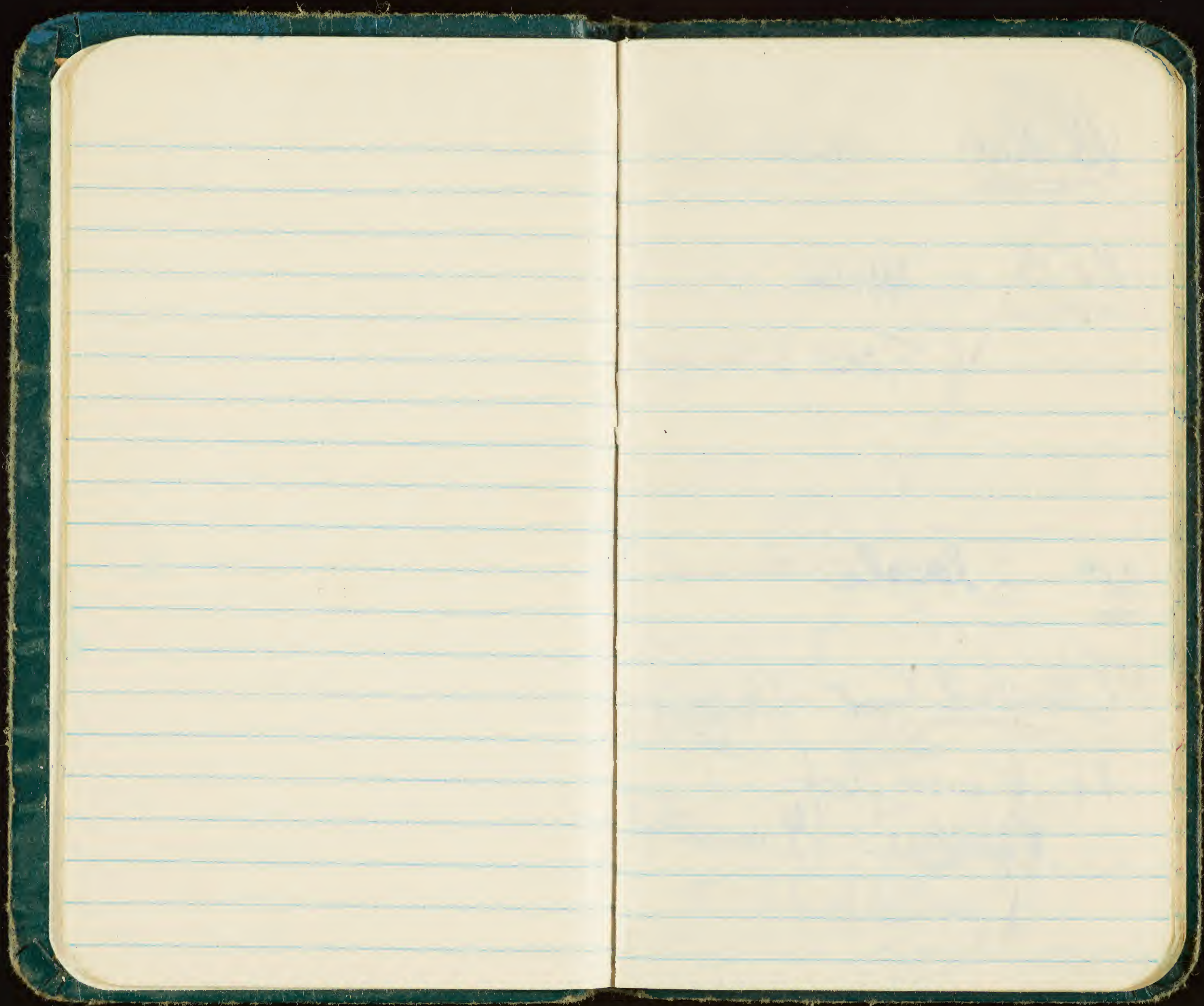
757-61068-61084

all bands used

#68 - lost







18 Nov. Howland

RFB 285 1+1+1+1
(5 total) total count

GF 2 locals total count

18 Nov

Shorebird Count (10 total)
R.T.

RT - 6 in one flock
(4 in another)
(1 painted bird)

18 Nov.

TOTAL
(1510)

LESSER FRIGATE
eggs

small 4 + 8 + 13 + 1 + 4 + 11
(41) total count

large 43 + 9 + 4 + 3 + 33 +
58 + 45 + 159 + 55
+ 16. (315) total count

local 15 + 27 + 47 + 41 + 18
73 + 85 + 56 + 70 + 82
91 + 30 + 70 + 76 + 200
34 + 53 + 16 (1154) total count

Lesser
Frigates

18 Nov. 1966

Barfon ground
showed both
squid and flying
fish are eaten.

✓ ADP

RECOVERY

19 Nov.

BFB - Sera death

{ 737-27757 ✓
737-28563

737-28516

737-23617

737-39616 ?

737-28547
737-53466

What are these ?

19 Nov.

Howland

SHORE BIRD COUNT


RT - ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~ ~~|||||~~
[12 - Flocks] + ~~|||||~~ ~~|||||~~ 61
WT - ~~|||||~~ ~~|||||~~ 10

BTC - ~~|||||~~ [Flock - 7] 12

G.P. - ~~|||||~~ ~~|||||~~ ~~|||||~~ 16

Gray Back Tern - 2 flying
near North end of island
& 15 sitting on beach

Total - 17



~~Handwritten scribble~~

This image shows a single sheet of white paper with horizontal blue lines and a vertical red margin line. The paper is oriented vertically, with the margin line running down the right side. There are approximately 20 horizontal blue lines spaced evenly across the page. The red margin line is positioned about one-fifth of the way from the right edge. The paper appears slightly aged or off-white.

~~1.20~~
~~2.1~~
~~2.5~~
~~4.1~~
~~2.2~~
~~2.2~~

[illegible]

A blue-inked scribble on a lined notebook page. The scribble consists of a dense, cross-hatched pattern of lines, with a small circular mark on the right side. The lines are drawn with a blue pen or marker, and the overall shape is roughly rectangular with irregular edges. The background shows the horizontal lines of the notebook paper.

[illegible]

✓ ADP

19 Nov RETURNS

RED TAILED TROPIC BIRD

{ 595-64025 - in empty nest ✓
625-85713 - on one egg ✓
625-85738 - on one egg ✓

19 Nov.

RTTB

Tropic bird nest sites on the side of island were worked:

- ① - Repainting of all nest sites
- ② - painting of new nest sites
- ③ - each nest site not given a color mark was given one.
- ④ every nest site was recorded as to its contents
- ⑤ adults in the nests were color coded the same marking as the nest site.
- ⑥ 3 returns were taken
- ⑦ 2 ~~un~~banded birds were seen, one ^{was} color marked but not banded.

Red Tailed Tropic Bird

19 Nov 1966

Nests	status	adult	color code or mark
●	empty	_____	_____
●—●	large downy chick	_____	_____
△	empty	_____	_____
□	empty	_____	_____
T - 2 red streamers	adult in breed. pl.	595-64025	T
∩	medium sized downy ch.	_____	_____
31 - ‡	empty	_____	_____
4 IIII	empty	_____	_____
5	empty	_____	_____
6	empty	_____	_____
9	empty	_____	_____
2 2 red streamers	empty	_____	_____
8 2 red streamers	empty	_____	_____
35	empty	_____	_____
43	empty	_____	_____
11 +	empty	_____	_____
44	empty	_____	_____
new - ⊕	adult in breeding pl.	not banded	not marked
new - W	adult on small chick	not banded	W

19 Nov

RTTB

nest	status
37	empty
12	empty
38	empty
39	empty
14	empty
15	empty
40	empty
17	empty
45	empty
16	empty
new - Z	adult on egg - new tail feather in
20	empty
19	empty
18	empty
41	empty
≡	adult on egg.
42	empty
26	empty

19 Nov

RTTB

adult	color code
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
625-85713	Z
_____	_____
_____	_____
_____	_____
_____	_____
625-85738	≡↑
_____	_____
_____	_____

19 Nov

note

27

24

25.

47.

60

48.

49

status

empty

empty

empty

immature

immature

empty

empty

adult

color mark

~~ADP~~
Returns
19 Nov-

BFB
Nocturnal

RETURNS SEX STATUS

737-20673	✓	♀	2 eggs
737-20604	✓	♀	roosting
737-28981	✓	♀	immature
737-82402	✓	♀	roosting
737-20046	✓	♀	immature
737-20671	✓	♂	
737-20798	✓	♀	immature
737-23572	✓	♀	roosting
737-27603	✓	♀	1 egg
737-28815	✓	♀	2 eggs
737-20810	✓	♀	roosting
737-23614	✓	♀	immature
737-39535	✓	♂	
737-28641	✓	♀	roosting
737-28864	✓	♀	2 eggs
737-28521	✓	♀	1 egg

19 Nov.

COUNT

BFB

ADULTS- ~~|||||~~

~~|||||~~

IMMATURES ~~|||||~~

~~|||||~~

~~|||||~~ 5, 4

SUBAD -1

(1)

(140) total

B. B. ~~|||||~~

~~|||||~~ = (54) total

BB SUBAD 1

(1)

BFB {chub - 70, 49 (723)
43, 29

Adults ~~|||||~~

~~|||||~~

~~|||||~~

~~|||||~~

+32 +5


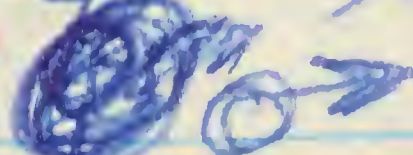
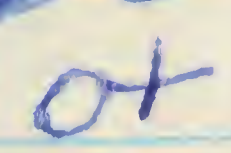
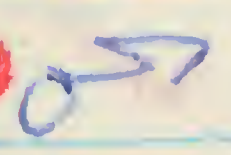




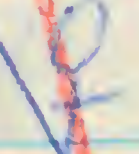



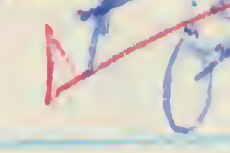
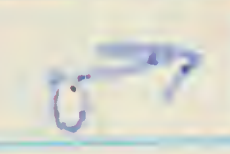




19 Nov ~~VADP~~ BFB Returns

Band #	Sex	Returns
737-49792	✓ ♀	small chick
587-83631	✓ ♂	roosting
737-53135	✓ ♂	leg
737-28785	✓ ♀	immature
587-80847	✓ ♀	2 eggs
737-27517	✓ ♂	less
737-82410	✓ SA	
737-20910	✓ ♂	2 eggs
737-27852	✓ ♀	2 eggs
737-49714	✓ ♂	2 eggs
737-53472	✓ ♀	small ch.
737-39925	✓ ♀	2 eggs
737-39632	✓ ♀	immature
737-39724	✓ ♂	sm. chick
737-49814	✓ ♀	immature
568-72196	✓ ♀	Club Burial
568-70560	SA	club
757-65329	♀	imm ✓
737-49531	♂	imm ✓




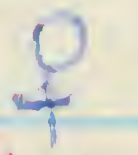

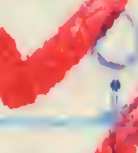
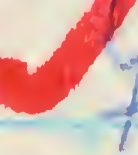









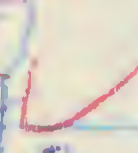

19 Nov ~~VADP~~ Returns BFB

Band #	Sex	Returns
737-20656	✓ ♂	large chick
737-28673	✓ ♂	roosting
737-28947	✓ ♀	immature
737-23570	✓ ♀	2 eggs
587-82805	✓ ♀	immature
737-49794	✓ ♂	Roosting
737-49754	✓ ♂	"
737-20105	✓ ♀	"
737-28927	✓ ♂	"
587-85040	✓ ♀	
737-49743	✓ ♀	less
737-28939	✓ ♂	imm
737-27831	✓ ♀	Roosting
587-80823	✓ ♀	immature
737-20623	✓ ♀	1 egg
737-49663	✓ ♂	Roosting
737-20877	✓ ♂	small ch
737-20856	✓ ♂	Roosting
737-20521	✓ ♂	leg

✓ADP 19 Nov. Returns BFB

737-20868 ✓  immature
 737-20870 ✓  "
 757-65264 ✓  immature
 757-39850 ✓  "
 737-20980 ✓  roosting
 737-20630 ✓  immature
 737-23567 ✓  "
 737-28976 ✓  large chick
 737-20867 ✓  immature
 737-20865 ✓  roosting
 737-20679 ✓  immature
 737-20619 ✓  "
 737-27847 ✓  immature
 737-28788 ✓  roosting
 737-20864 ✓  "
 737-49765 ✓  large chick
 568-71335 ✓  roosting
 737-20750 ✓  1 egg

19 Nov. **✓ADP** BFB

737-39689 ✓  2 eggs
 737-27904 ✓  roosting
 757-65014 ✓  "
 737-53258 ✓  "
 587-83324 ✓  roosting
 737-20749 ✓  "
 737-20828 ✓  "
 737-53352 ✓  large chick
 737-82441 ✓  large chick
 587-82812 ✓  large chick
 737-20752 ✓  2 eggs
 737-27754 ✓  roosting
 737-27819 ✓  2 eggs WS
 737-27753 ✓  2 eggs WS
 737-27861 ✓  roosting
 737-82813 ✓  roosting WS
 737-53275 ✓  "
 737-27749 ✓  "

VADP

19 Nov

BFB

Returns

737 49683 U ✓ roosting

587 85050 ✓ " "

737 20878 ✓ " "

737 23504 ♀ ✓ chick

737 23505 ♂ ✓ " "

737 49718 ♂ ✓ immature

737 20850 ♂ ✓ roosting

737 82455 ✓ large chick

737 20965 ♀ ✓ roost.

737 23514 ✓ + imm

757 67200 ✓ roost

737 27822 ♂ ✓ " "

737 49704 ♂ ✓ large chick

737 27747 ♂ ✓ roosting

737 43725 ♂ ✓ roosting

737 53413 ♂ ✓ large chick

737 49669 ♀ ✓ " "

737 28793 ♀ ✓ roosting

Returns

19 Nov

BFB

VADP

737 28827 - ♂ ✓ roost

587 80895 ♀ ✓ 2 eggs

737 39704 ♀ ✓ roost

737 82443 ♀ ✓ " "

587-65018 ♀ ✓ immature

737 20746 ♂ ✓ " "

737 49671 ♀ ✓ roost

737 49839 ♂ ✓ roost

587 80838 ♂ ✓ " "

737 27805 ♀ ✓ " "

737 53272 ♀ ✓ " "

737 53349 ♀ ✓ immature

737-27815 ♂ ✓ " "

737 53344 ♀ ✓ 2 eggs

737 49687 ♂ ✓ " "

737 28647 ♂ ✓ roosting

737 28580 ♂ ✓ " "

737 62276 ♀ ✓ not 757

587 85031 ♂ ✓ " "

✓ADP

19 Nov Returns

Brown Booby

- 737-53013 - large chick ✓
737-53018 - large chick ✓
737-53072 - 2 eggs ✓
737-23623 - 2 eggs ✓
737-53051 - 2 naked chick ✓
757-64178 - 1 small chick + 1 egg ✓
737-20906 - 1 egg ✓
737-53033 - large chick ✓
587-83623 - 2 eggs ✓
737-81539 - SUB AD ✓
587-82373 - 2 eggs ✓

737-27701 { ♂ ↓ roosting ✓
737-20985 { ♀ " ✓
737-20523 { ♀ " ✓
737-53164 { ♂ " ✓

Blue-face ↑

✓ADP

19 Nov

Returns

BFB

- 737-28931 ✓ ♂ roosting ✓
737-28658 ✓ ♂ " ✓
737-53235 ✓ ♂ " Red paint ✓
737-53292 ♂ roosting ✓
737-53259 ✓ ♂ large chick ✓
737-53438 { ♂ " ✓
737-28853 ♀ roosting ✓
587-81876 ♂ " ✓
737-49858 ♂ " ✓
737-39910 { ♀ imm ✓
~~737-20801~~ ✓
737-20801 ♀ Roost ✓
558-85704 ♀ Roost ✓
737-39992 ♂ 2 eggs ✓
737-26698 ♀ Roost ✓
737-53416 ♂ small chick ✓
737-53251 { ♀ egg ✓
737-39993 { ♂ egg ✓

19 Nov Returns ✓ADP
BFB

737 39940 ♀ Roosting ✓
737 53407 { ♂ imm ✓
737 20721 { 0 imm ✓
737 28533 ♂ 2 eggs ✓
737 - 39950 ♀ imm ✓
757 - 65154 ♀ Roosting ✓
737 49632 ♂ " ✓
737 - 28637 ♀ ✓
737 49828 ♀ small ✓
X 737 80798 ♀ Roosting ✓
737 20730 ♂ " ✓
737 39961 ♂ imm ✓
737 27983 ♀ roost ✓
737 28781 ♀ egg ✓
587 83435 ♂ Roost ✓
737 39746 ♂ Roost ✓
757 63305 { ♂ chick ✓
737 28945 { ♀ " ✓

19 Nov Returns ✓ADP
BFB

737 20817 ♂ Roost ✓
587 83432 ♂ imm ✓
737 26688 ♀ 3 eggs ✓
587 83607 ♀ 2 eggs ✓
737 49824 ~~49824~~ ♂ 2 eggs ✓
737 39914 U Roost ✓
737 39716 ♀ imm ✓
737 49596 ♀ " ✓
737 49597 ♂ imm ✓
737 21265 ♀ " ✓
737 39865 ♂ 2 eggs ✓
737 39764 ♀ 2 eggs ✓
737 39887 ♀ imm ✓
737 39725 ♂ " ✓
737 26685 ♂ R ✓
737 49609 ♀ " ✓
737 39896 ♂ 1 egg ✓
737 39738 ♀ 2 eggs ✓
587 83608 ♂ " ✓

Returns

19 Nov

✓ADP

BFB

737 39759 ♂ imm ✓

737 37593 ♂ imm ✓

737 49590 ♀ " ✓

737- 39697 ♂ imm ✓

737 37599 ♀ imm ✓

737 49745 ♀ 2 eggs ✓

737 49600 ♀ imm ✓

737 39871 ♂ " ✓

737 39890 ♀ 2 eggs ✓

737 39840 ♀ Roost ✓

737 39861 ♀ immat ✓

737 39649 ♂ Roost ✓

737 39680 ♀ " ✓

737 27600 ♀ 2 eggs ✓

737 39647 ♂ small chick ✓

Chick

19 Nov

✓ADP

Returns

BFB

~~737 39662 ♀ 2 eggs ✓~~

~~737 39589 ♀ imm ✓~~

Banding 19 Nov.

BFB

~~61068 - lost~~

~~69 - immature~~

~~70 - ♀ - roosting~~

~~71 - immatures~~

~~72 -~~

~~73 ♂ - roosting~~

~~74-79 - immatures~~

~~80 ♀ - 2 eggs~~

~~81 ♂ roosting~~

~~82 ♀ chick~~

~~83 ♂ roosting~~

~~84 immature~~

✓ADP

20 Nov Returns BFB

- ✓737-23703 ♂ with ♀ ✓
 ✓737-23571 ♂ roosting ✓
 ✓737 20690 ♀ immature ✓
 ✓737 82403 ♀ roosting ✓
 ✓737 20793 ♂ immature ✓
 ✓737 27426 ♀ with ♂ ✓
 ✓737 20788 ♂ 2 immatures ✓
 ✓737 49860 ♀ small chick ✓
 ✓757 63388 ♀ small chick ✓
 ✓737-53481 ♂ immature ✓
 ✓737-27801 ♀ immature ✓
 ✓737 53473 ♂ " ✓
 ✓737 39520 ♂ immature ✓
 ✓737-39603 ♂ immature ✓
 ✓737-20829 ♀ roosting ✓
 ✓737-39806 ♀ immature ✓
 ✓737 23561 ♀ with ♂ ✓
 ✓737 39529 ♀ immature ✓
 ✓737 22672 ♀ with ♂ ✓

✓ADP

20 Nov Returns BFB

- ✓737 82026 ♀ large chick ✓
 ✓737 28530 ♂ 1 egg ✓
 ✓737 27787 ♀ roosting ✓
 ✓587-85029 ♀ immature ✓
 ✓737 39516 ♂ 2 eggs ✓
 ✓737 27774 ♀ 1 egg ✓
 ✓737 53104 ♀ roosting ✓
 ✓568-70004 sub adult ✓
 ✓737 39588 ♀ 2 eggs ✓
 ✓737 28925 ♂ with ♀ ✓
 ✓558-85050 ♂ roosting ✓
 ✓737-28522 ♀ " ✓
 ✓737-20547 ♂ immature ✓
 ✓737 27933 ♀ " ✓
 ✓587-83247 ♀ immature ✓
 ✓737 28873 ♀ " ✓
 ✓737 -28797 ♂ small chick ✓
 ✓737 53118 ♀ 1 egg ✓
 ✓737-53121 ♀ roosting ✓

✓ ADP

20 Nov. Returns BFB

- ✓ 737 49752 - ♂ roosting
- ✓ 737 28783 ♂ "
- ✓ 737 53114 ♀ "
- ✓ 737 39805 ♂ "
- ✓ 737 27951 ♂ immature
- ✓ 587- 84001 ♂ inter. "
- ✓ 737 - 28653 ♂ large chick
- ✓ 737 39586 ♀ immature
- ✓ 737 28937 ♂ roosting
- ✓ 737 82038 ♀ roosting
- ✓ 737 39522 ♀ immature
- ✓ 737 28579 ♂ "
- ✓ 737 28792 ♂ naked chick
- 587- ✓ 85026 - ♂ large chick
- ✓ 737 53489 - ♀ roosting
- ✓ 737 49653 ♂ roosting
- ✓ 737 39571 ♂ "
- ✓ 737 53363 ♂ immature
- ✓ 737 82012 ♂ "

✓ ADP

20 Nov. BFB Returns

- ✓ 737 20802 ♂ 2 eggs

✓ADP

Returns 20 Nov.

Brown Booby

737 53044 → 2 eggs ✓
737 53013 - large chick ✓
737 53012 - 2 eggs ✓
737 53066 - 2 eggs ✓

20 Nov - Hawland

RTTB - 2 unmarked
adults observed
flying overhead.

BTC - 2 individuals
seen foraging south
of camp today
at 1500. They were
at the high tide
line.

South east side

20 Nov.

BFB.

Count -

nocturnal

AD - painted

AD - not painted

2, 1, 1, 2, 1, 1, 1, 1

13, 1, 2, 1, 3, 2

1, 2, 1, 1, 1, 1, 1, 1

2, 2, 2, 3, 1, 2, 2

~~1, 1, 1, 1, 1, 1, 1, 1~~

2, 4, 2, 4, 2, 17, 15

5, 3, 2, 1, 1, 1

4, 1, 4, 20, 4, 18, 2

2, 2, 1, 1, 1, 1, 1

7, 5, 9, 3, 2, 3

(20)

(154) total

Im - 1, 4, 1, 3, 2, 2, 2, 5, 1, 1, 3, 1, 4

1, 1, 1, 3, 2, 3, 4, 3, 2, 2, 2, 1, 2, 2

1, 3

(63)

Brown Booby 3, 2, 3, 1, 4, 1, 1, 1, 1, 1

(19)

General

The shorebirds seem to be wintering here rather than just passing through. They can be approached to within 10 feet or so without flying off. No large flocks of birds were seen, mostly 2's and 3's.

Most R.T. were observed feeding along the tide line. The W.T. were observed foraging about the rocks on the intertidal zone.

The Golden Plovers were
seen inland off the
beach. No large
flocks were noted.
One flock of 7-8
B.T.C. was seen at
the south end of the
island on 19 Nov.
They were flushed
inland away from
the shoreline.

R.T.B. - Nest
sites were worked
and repainted.
Several adults
were returned
and color coded.

Sooty Tern. Individuals
were shot on 20 Nov.
and will be examined
for gonad and other
measurements.

L.F. The colony seems
to have progressed
successfully since the
Oct trip. ~~the~~ Over
90% of the ~~birds~~
last months
large chicks are now
locally. Banded
birds have had leg
swelling around the
band. Colony size
seems to be about
the same as last.

months. ~~May~~.

One ~~♂~~ Lesser
was observed with
expanded gular
pouch - (display)
cls nesting cycle
starting again
Fresh eggs were at
a minimum.

RFB - Of the nests
observed (around
the L.F. colony)
 $\frac{1}{2}$ had eggs and
the other $\frac{1}{2}$ downy
chicks. Approx 10-12
nests checked -
4 immatures were
noted.

BB - mostly eggs
and small chicks
were noted in
nest sites.

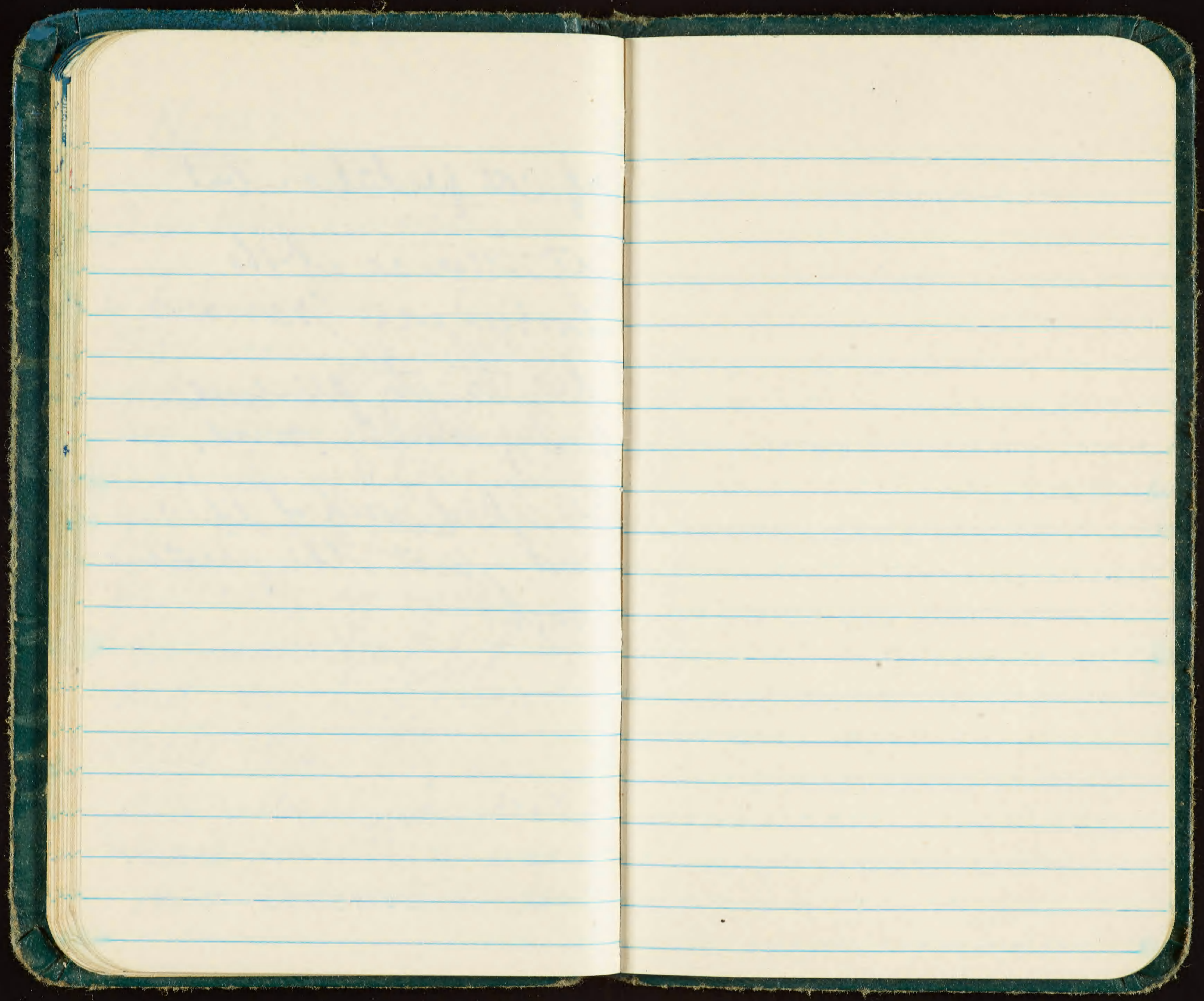
Vegetation The island
appears to be much
drier than Oct. The
grass is shorter
and not as green.

Spinks - seem to
be more abundant
than Oct. No count
taken but several
per square foot
were noted at the
northern end of the
island.

NOTE:

20 Nov. nocturnal
while working the
SW corner for Booby
returns at least
one cat was observed.
All during this time
the Boobies had been
extremely jumpy.
The moon had set
and my head lamp
made them fly as
soon as it was pointed
their way. There was
no concrete evidence

of cat predation but
it seems as if the
Boobies were nervous
due to its presence,
and probably noise.
We had worked this
end just the previous
night



$$\begin{array}{r}
 243. \\
 \hline
 648 \overline{) 168000} \\
 \underline{1396} \\
 2840 \\
 \underline{2592} \\
 2480
 \end{array}$$

2-92

$$\begin{array}{r}
 243. \\
 \sim 60 \\
 \hline
 14580
 \end{array}$$

$$288 \overline{) 168000}$$

Lester

Fryate

Calory

estimation

$$225 \times 250 =$$

$$250 \times 480 =$$

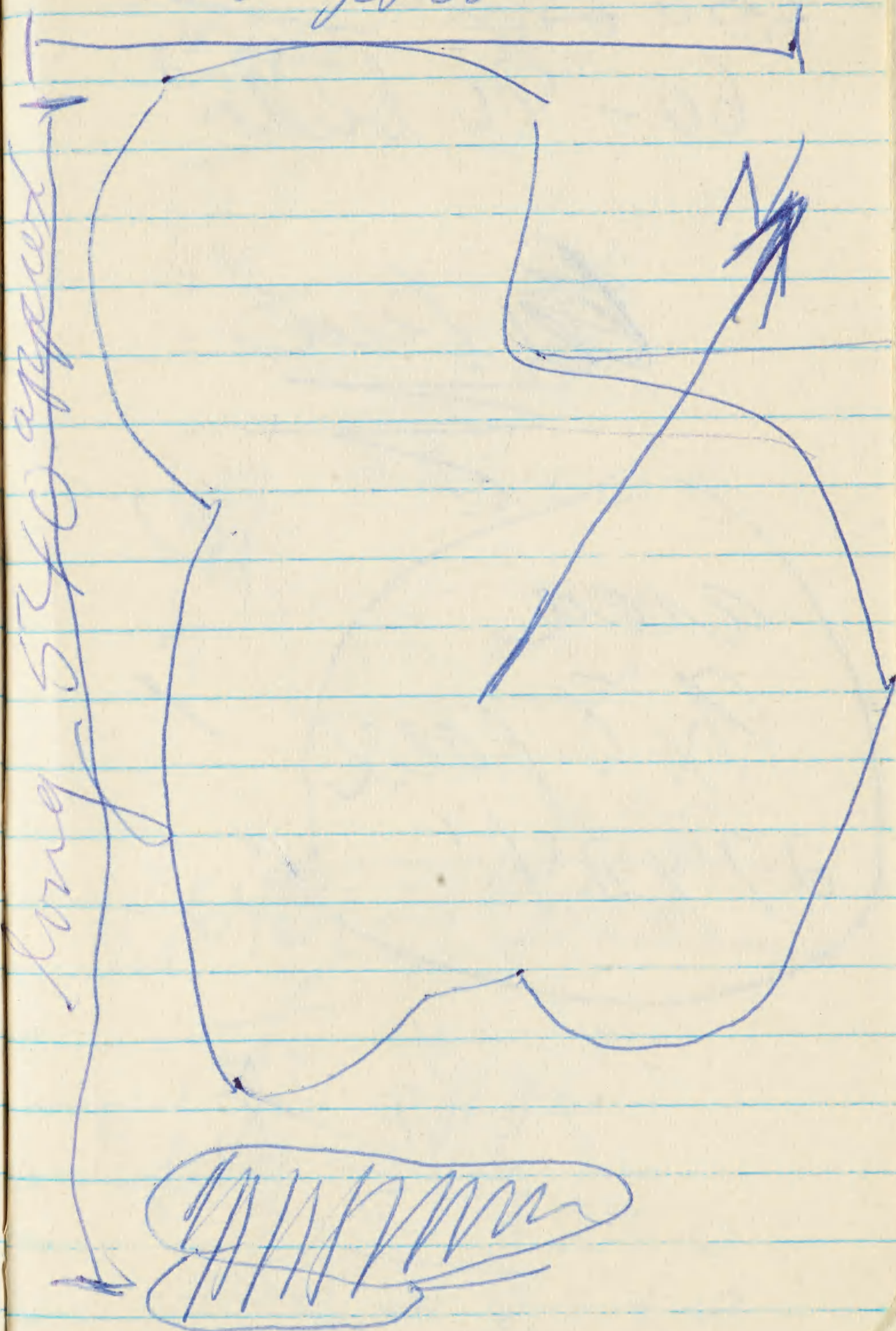
$$\begin{array}{r} 16x \\ 18 \\ \hline 128 \\ 16 \\ \hline 288 \end{array}$$

$$\begin{array}{r} 480 \\ 2250 \\ \hline 22500 \\ 900 \\ \hline 112500 \end{array}$$

$$\begin{array}{r} 222 \\ 250 \\ \hline 11100 \\ 444 \\ \hline 55500 \end{array}$$

$$\begin{array}{r} 55500 \\ 112500 \\ \hline 168000 \end{array}$$

450' wide



$$\begin{array}{r}
 375 \\
 375 \\
 375 \\
 \hline
 2250 \quad 2250 \quad 28000 \\
 60 - 80 \text{ birds}
 \end{array}$$

birds

area
 9x8 paces
 27'x24'

228

250

$$\begin{array}{r}
 648 \\
 \hline
 3240
 \end{array}$$

375

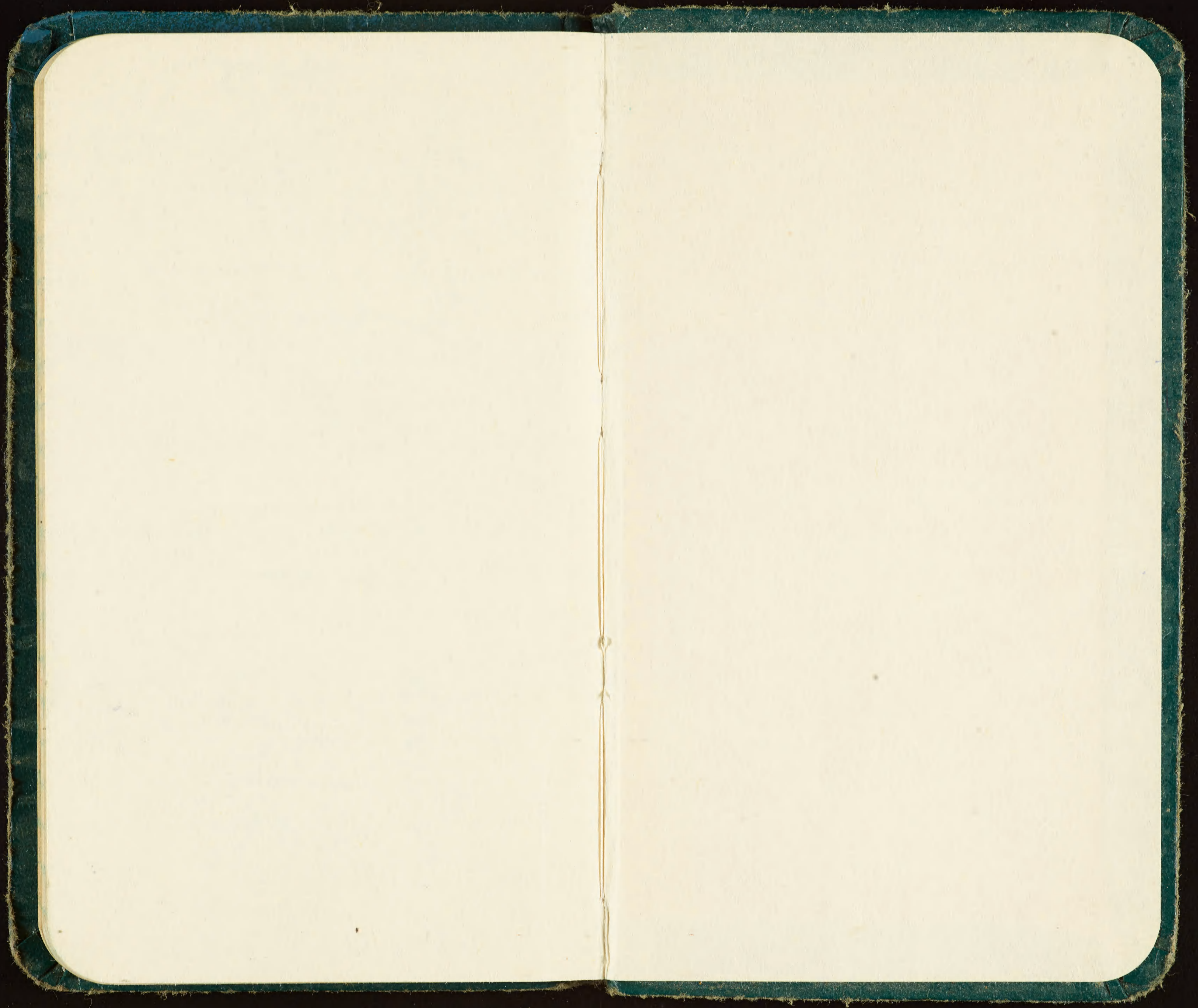
$$\begin{array}{r}
 27 \\
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 0
 \end{array}$$



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